# THC4001L High Build Epoxy for Severe Exposure

## DESCRIPTION

**THC4001L** is a specially formulated Epoxy resin that has excellent Chemical Resistant, and physical strength. It is variously applied as a reinforcing agent for civil, and architectural structures.

## FEATURE

- Excellent physical strength
- Excellent adhesion
- Little hardening contraction
- Excellent abrasion resistance

## USAGE

Area of application includes:

- Battery Plant.
- Chemically severe exposed substrate surface.
- Internal area of concrete, steel, or any other substrate that contains a certain chemical.
- Internal area of water treatment with concrete, steel, or any other substrate.
- Wastewater treatment surface.
- Potable Water container.

## PROPERTIES

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| Form | Viscous-colored liquid (A)<br>Yellowish transparent liquid (B) |
| Color | Grey, Green |
| Mixed Density, g/mL | 1.20 ± 0.05 |
| Pot Life at 30°C | Within 20-45 minutes |
| Drying/Recoat Time at 30°C | Within 4-6 hours |
| Curing Time at 30°C | Within 16-24 hours |
| Ultimate Setting at 30°C | 7 days (open traffic and exposure) |
| Solid Content | 100 % |
| Mixing Ratio | 2.5 : 1 |
| Thickness | 1,000 – 3,000 microns per Layer |

## CHEMICALS RESISTANCE

**THC4001L** Immersing Test 7 Days Result resistant to follow chemicals:

- Sodium Hydroxide 10%, Sodium hydroxide 25%, Sodium hydroxide 50%
- Potassium Hydroxide 50%
- Urea solution 10%, Urea Solution (Saturated)
- Sugar Solution (Saturated)
- Bleach 5%
- Brake fluid, Hydraulic Oil, Motor Oil
- Kerosene, Diesel Fuel, Petrol, Industrial Methylated Spirit, Butanol
- Lactic Acid 10%, Lactic acid 20%
- Citric Acid 10%, Citric acid 50%
- Phosphoric Acid 10%
- Oleic acid 100%, Tartaric acid 50%
- Acetic Acid 5%, Acetic acid 10%
- Hydrochloric acid 10%, Hydrochloric acid Concentrated
- Sulfuric Acid 10%, Sulfuric Acid 70%, Sulfuric Acid 98%

## INSTRUCTION OF USE

1. Surface Preparation

   The long-term durability of a Protective Coating system is determined by the adhesive bond achieved between the protective coating material and substrate. Correct and proper substrate preparation prior to body coat application is the most important step.

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A. New Concrete
This concrete must be aged for 28 days, substrate moisture content must be less than 5%, the minimum grade is 30 MPa, should not contain water repellent agent, and Pull-off strength should exceed 1.5 MPa. The substrate should be sound and free from contamination such as oil and grease, mortar, and paint splashes, or curing compound residues. Excessive laitance can be removed using mechanical methods. If the concrete age is below 28 days and the moisture content above 5%, so must apply moisture barrier.

B. Old Concrete
Substrate moisture is a maximum of 5%, a minimum grade is 30 MPa, should not contain water repellent agent, and Pull-off strength should exceed 1.5 MPa. Oil and grease penetration should be removed using a proprietary chemical degreaser or by hot compressed air treatment. Any damaged areas or surface irregularities should be repaired using one of the Epoxy Putty. If the moisture content above 5%, so must apply moisture barrier.

C. Steel
Blasting should be conducted to achieve SS 2 1/2 or SSPC SP-10 standard surface profile. The substrate must be free from oil, grease, dust, or any other contamination that would affect bond strength.

2. Excessive dust, debris, and other contaminant material should be removed using a high-pressure blower or industrial vacuum cleaner.

3. Mixing
Mix thoroughly **THC4001L** Part A and Part B using a medium-speed (300 – 500 RPM) mixer with a spiral-shaped steel stirrer for 1-2 minutes to achieve consistent quality and color.

4. Placing
   - $1^{st}$ Coat
     Apply thoroughly onto the surface using a brush, roller squeegee, or airless-spray application depending on the application condition
   - $2^{nd}$ Coat.
     $2^{nd}$ coat can be placed when $1^{st}$ coat's initial curing is already achieved.
     Apply thoroughly onto the surface of $1^{st}$ coat using a brush, roller squeegee, or airless-spray application depending on the application condition

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| **CLEANING** | Tools and equipment just can be cleaned with industrial cleaner (Acetone) immediately after use. Cured products only can be removed using mechanical action. |
| **PACKAGING** | 17.5 Kg per set<br>Base: 12,5 Kg ; Hardener: 5 kg |
| **STORAGE** | Store in dry conditions between 5 – 30 °C.<br>Put away from sources of heat and naked frames in the original, unopened packs.<br>If stored at high temperatures the shelf life may be reduced. |

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| **SHELF LIFE** | 1 year in unopened and undamaged packaging. |
| **IMPORTANT NOTES** | 1. Attention to open time and workability time<br>2. When in the application, protect the application area against:<br>a. Direct sunlight<br>b. Rain and water current |
| **SAFETY MEASURES** | Impervious gloves and barrier cream should be used when handling these products.<br>Eye protection should be worn. In case of contact with eyes, wash thoroughly with plenty of water and seek medical advice if symptoms persist.<br>If contact with skin occurs, it must be removed before curing takes place. Wash off with an industrial skin clearer followed by plenty of soap and water. Do not use solvent.<br>Ensure adequate ventilation when using these products. |
| **DISPOSAL** | Spillage of products should be absorbed on to earth, sand, or other inert material and transferred to a suitable vessel. Disposal of such spillages or empty packaging should be in accordance with local waste disposal regulations. For further information, refer to the Product Material Safety Data Sheet. |

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